



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,542	07/16/2004	Shuhei Ikeda	XA-10142	8452

181 7590 09/26/2006

MILES & STOCKBRIDGE PC  
1751 PINNACLE DRIVE  
SUITE 500  
MCLEAN, VA 22102-3833

EXAMINER
----------

GOODEN JR, BARRY J

ART UNIT	PAPER NUMBER
----------	--------------

3616

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/501,542

Applicant(s)

IKEDA ET AL.

Examiner

Barry J. Gooden Jr.

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This office action is in response to the amendment filed 6/21/2006. Currently claims 1-11 are pending; claims 1, 4-7 are amended; and claims 8-11 are new.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, and 7, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese reference 2001-347,953 A.

In regards to claims 1-4 and 7, Japanese reference 2001-347,953 A shows a steering apparatus for supporting a steering shaft (1) to which a steering wheel is attached so that the steering shaft (1) is displaceable in an axis-direction, the steering apparatus comprising:

an inner column (3) for supporting the steering shaft (1) rotatably;

a pair of brackets (6b, 6c) constructed to be fitted to a vehicle body and disposed in positions facing each other with respect to an axis of the steering shaft (1);

a tension member (4, integral to the outer column) extending between the pair of brackets (6);

two fixing members (a bolt (13) and nut (15), Reference is made to Figure 9) for fixing the tension member (4) from outside of the pair of brackets (6);

a displacement causing member (15-18, Reference is made to Figure 9), disposed between one of the brackets (6b) and one of the fixing members (15), for causing a relative displacement between the pair of brackets (6);

an outer column (4) constructed to be held on the vehicle body through a connection (Reference is made to Figure 13) between the tension member (4), the brackets (6) and the fixing members (13, 15);

Art Unit: 3616

the outer column (4) having a pressing portion between the pair of brackets (if pressure is applied to the outer column (4), it has a pressing portion) of which an outer periphery is engaged with both of the pair of brackets due to the relative displacement of the brackets (Reference is made to Figure 14);

the outer column (4) having an inner peripheral surface embracing an outer periphery of the inner column (Reference is made to Figure 14);

wherein the pair of brackets (6) interlocking with the tension member (4) get closer to each other due to the displacement caused by the displacement causing member (15-18), a pressing force is thereby applied to the inner column (3) via the pressing portion of the outer column (4), the inner column (3) maintains its axis-directional position with respect to the brackets (6) through the outer column (4); and,

wherein an axis of said displacement causing member (15-18, Reference is made to Figure 9) extends through said outer column (4) (Reference is made to Figure 9);

wherein an axis of said steering shaft (1) substantially intersects a line that connects centers of said two fixing members (13, 15);

wherein the pair of brackets (6) is formed with tilt grooves (5);

wherein said outer column (4) includes an integrally-formed car body fitting portion (8, See Figure 18); and

wherein said tension member (4) is disposed outwardly in the radial direction from the inner column (3) (Reference is made to Figure 14);

wherein said tension member (4) is disposed between a pair of parts of said pressing portion (which are axially spaced on the outer column (4);

wherein at least one slit (8) extends from an end of said outer column (4);

wherein the displacement causing member (15-18) includes a pair of cam members (17,18), of which protrusions abut one another; and,

wherein the displacement causing member (15-18) includes a lever (16) and a pair of cooperating cams (17, 18), one of which is rotatable relative to the other in response to rotation of said lever (16), and wherein the line that connects centers of the two fixing members (13 and 15) constitutes a rotational axis of the lever (16) and one of the pair of cooperating cams (17, 18).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Reference 2001-347953 A in view of Higashino, US Patent 5,605,351.

The Japanese Reference shows all of the claimed elements including the outer column (4) being formed with a protruded portion (See Figure 14) extending inwards in a radial direction and engaging an outer surface of the inner column (3), and excluding a part of the inner column being formed with at least one elongate hole extending in an axis-direction, and the outer column engaging with the elongate hole.

Higashino teaches an inner column (2) being formed with at least one elongate hole (14) extending in an axis-direction, and a member (17) engaging with the elongate hole (14).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inner column of the Japanese Reference in view of the teachings of Higashino to include an elongated hole that the outer column engages so as to provide a more secure method of engagement between the outer and inner columns.

Art Unit: 3616

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Reference 2001-347953 A in view of Koellisch et al., US Patent 6,357,318 B1.

The Japanese Reference shows all of the claimed elements except a tension member being constructed of a plurality of parts.

Koellisch et al. teach a tension member (32, 34) being constructed of a plurality of parts (two separate parts) that can be divided so as to form an annular configuration embracing a column (24).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tension member of the Japanese Reference in view of the teachings of Koellisch et al. to include being constructed of a plurality of parts so as to facilitate ease of installation.

#### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

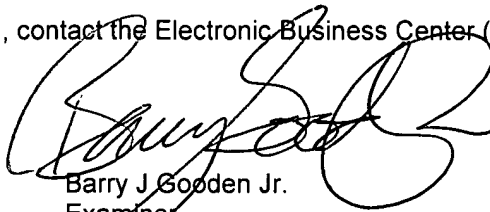
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry J. Gooden Jr. whose telephone number is (571) 272-5135. The examiner can normally be reached on Monday-Friday 8:00am-4:30pm.


Art Unit: 3616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 9/18/06  
Barry J. Gooden Jr.  
Examiner  
Art Unit 3616

BJG

 9/18/06  
PAUL N. DICKSON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600